charge a fee of R35.00 for this service. **CONCLUSIONS:** PIT is an important service that pharmacists deliver where the need exists. It is recommended that pharmacists be encouraged to counsel patients thoroughly when delivering a PIT service.

PHP57

AN ANALYSIS OF DRUG COST CONTAINMENT POLICY AT A HOSPITAL IN SOUTHERN THAILAND

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OBJECTIVES: To examine drug cost containment policy implemented at a hospital in southern Thailand. **METHODS:** This study was a retrospective, pre-post policy intervention descriptive design. During the fiscal years of 2005 and 2009, various drug cost containment strategies, including generic substitution for any drug group and a successful treatment guideline for orthopedic drugs, were adopted at a hospital in southern Thailand. Drug expenditures across those fiscal years were examined. The expenditure proportions between drugs listed and unlisted in National Essential Drug List were calculated. Cost-saving analysis of all generic substitution was conducted. Since the treatment guideline for orthopedic drugs was available in the hospital, their expenditures were also examined. **RESULTS:** Total drug expenditures had increased with decreasing rate across the study years. It increased by 47.15% from year 2005 to 2006, 43.19% from year 2006 to 2007, 21.17% from year 2007 to 2008 and 2.17% from year 2008 to 2009. The expenditures of essential drugs in the National Drug List were accounted for 61.64%, 56.62%, 54.38%, 48.67% and 50.94% across those study periods, respectively. Results showed that generic drug substitution policy reduced overall drug expenditures by 34.33%, or 7.66 million baths from year 2008. In 2009, only 11 items of generic drug substitution for branded-name drugs could reduce drug expenditures by 13.33%, or 4.73 million bahts which reflected annual cost-saving about 25.95 million bahts. In the same year, a result showed that the implementation of orthopedic drug guideline reduced drug expenditures by 5.53% or 2.10 million bahts. **CONCLUSIONS:** The study indicated that treatment guideline and generic drug substitution policies could control relatively high amount of drug expenditures at a hospital in southern Thailand. Hospital administrators should consider to continue these policies.

PHP58

ANNUAL HEALTH INSURANCE REIMBURSEMENT OF DENTAL CARE IN HUNGARY

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OBJECTIVES: The aim of this study was to asess the annual health insurance reimbursement of of dental health service in Hungary. **METHODS:** The assessment base of the study was the annual reports of National Health Insurance Fund Administration (OEP). Only the data collected from the services in conctractual relationship with the OEP and delivered in 2008 were evaluated. Dental care services are organised in different levels: general dental service, specialist dental care, special dental care on university level and inpatient departments. Our study covers primary, outpatient and hospital dental care. **RESULTS:** Dental care was supplied by 3378 general and specialist dental care services until the end of 2008. For the hospital treatment of more serious cases 17 inpatient department is available with 154 patient beds. Within the period of examination (2008) 7.6 million cases or rather 23.6 million interventions were carried out. The health insurance expenditures of the OEP for outpatient dental care was 23.9 billion forints (€85,18 million). The total health insurance reimbursement of dental care (including primary, outpatient and hospital care) was 24.92 billion Hungarian forints (€88.82 million) in 2008. **CONCLUSIONS:** The health insurance reimbursement of dental care services in Hungary is approximately 2% of the total health insurance expenditure of OEP.

PHP59

EVOLUTION OF PUBLIC EXPENDITURE WITH PHARMACEUTICAL CARE IN BRAZIL DURING THE PERIOD 2005–2008

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OBJECTIVES: There is a known concern of health researchers and public managers in Brazil with the population's access to medicines. We quantified the public expenditure on medicines in Brazil, during the period of 2005 to 2008. **METHODS:** The expenditure on medicines comes from a data warehouse of the Ministry of Planning, Budget and Management that stores the information concerning any purchase made by the Brazilian Federal Government. We also computed the amounts transferred to official laboratories to produce medicines. Information on the states, Federal District and municipalities came from the Information System on Public Health Budget (SIOPS). **RESULTS:** In the period 2005 to 2008, the public spending with drugs rose from US$ 1.8 billion to US$ 2.0 billion in real terms, with an average annual growth equivalent to 3%. The average spending in this period was US$ 1.8 billion. Most of the spending on medicines is attributed to the Federal Government, with values exceeding US$ 835 million per year. Just under half of the expenditure is given to states and municipalities. Considering only the federal spending, the "strategic component" represents the largest share, with participation from 56%–64% in the period. This result is expected, since the Ministry of Health is responsible for funding all the medicines from the "strategic component" of pharmaceutical care which includes, among others, the antiretroviral drugs and blood products. The amounts of transfers to official laboratories ranged between 20–25% of drug costs. **CONCLUSIONS:** The expenditure for those pharmaceutical care programs whose purchases are centralized at the federal Ministry of Health, didn't show a significant increase in the period of 2005–2008. Rather, the evidence suggests relative stability of procurement of medicines from pharmaceutical care programs under the Federal Government's responsibility in this period.

PHP60

HEALTH INSURANCE SUBSIDY OF SPA TREATMENT IN HUNGARY

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OBJECTIVES: The aim of our study is to calculate the average health insurance reimbursement of spa treatment according to counties in Hungary. **METHODS:** Data were derived from the Hungarian National Health Insurance Fund Administration (OEP) and covers the fiscal year of 2007. These data was analyzed in the light of different value of its average point. The Hungarian spa financing method is based on relative system, which is depending on the treatment's price. We calculated the average health insurance subsidy per of spa treatment (HIS/STN) as an indicator of average health insurance reimbursement of a single spa treatment. **RESULTS:** In 2007 the number of spa treatment was 8,160,438 and the full treatment expenditure of subsidy was 4.34 billion HUF (US$25,632 million). The average value of (HIS/STN) was 540,000 HUF (US$3124). Two outlier points are the region of North Hungarian Plan (different from average HIS/STN value was –6.76%) and region of North Transdanubia (different from average HIS/STN value was 12.47%). The other regions performed similar outcomes ratio between 1.33% and 2.95%. **CONCLUSIONS:** The main cause of the two outlier regions is the inadequat structure of Spa services. Less people visit to North Transdanubian Region, because the number of spa facilities isn't significant, but these thermal baths are significant, which price is higher. The North Hungarian Plan attracts a lot of patients with lower price. The result if the price is lower, the subsidy will be lower because of the financing system is based on relative method.

PHP61

MARKET ACCESS AGREEMENTS IN EUROPE: TYPOLOGY AND RATIONALE

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OBJECTIVES: Achieving Market Access for new products has become complex for pharmaceutical companies. Faced with growing expenditure, health care authorities accept or propose various Market Access Agreements (MAA) (risk-sharing/performance-based/commercial schemes) but often with little experience and knowledge. We performed in-depth analysis of their design and we formulate recommendations to stakeholders. **METHODS:** MAA is a formalized compromise between payers and industry to achieve: Price and Reimbursement, HTA recommendation and Formulary listing. We reviewed published and grey literature from major health insurers in France, Italy, Germany and UK. We conceptualize MAA typology according to the nature of uncertainty perceived by stakeholders and their motivations. **RESULTS:** We identified above 30 MAAs and classified them as follows: 1) Value for money not questioned: a) Conditional Market Access Agreement: Evidence development agreement→Aim: address actual uncertainty; b) Health Outcome Boostering Agreement: Disease Management Initiative→Aim: improve competitive advantage; 2) Value for money questioned: a) Cost Containment Agreement: Basic commercial agreement→Aim: reduce/control drug bill; b) Health Outcomes Agreement: Value based agreement→Aim: link payment to performance. Motivations of public payers: Main: Buy health production; Other: Control expenditure; Improve ICER of expensive products; Prevent media coverage of negative decision; Provide patient access; Expand benefits basket. Motivations of the industry: Main: Achieve Market Access for a product at high price in all markets; Other: Mitigate development failure; Reassure share holders; Improve company publicity; Fulfil requirements of authorities. In UK the design of MAA was a direct consequence of formalized HTA, in Italy there was no apperent rationale. **CONCLUSIONS:** Commonly used nomenclature needs to be revisited. Applying our typology framework should allow health care payers and the industry to design and implement MAAs rationally and with transparence. MAAs in UK are a direct repercussion of a not favorable primary HTA.

PHP62

VALUE OF CONGRESS ABSTRACTS OF COST-EFFECTIVENESS STUDIES FOR DECISION MAKERS

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OBJECTIVES: ISPOR, iHEA, and HTAi regularly organize congresses in the field of health economics. Given the number of abstracts accepted each year it is crucial to assess their credibility and how results of cost-effectiveness analyses differ across meetings. **METHODS:** We collected all abstracts published 2007–2009 at ISPOR (International and Europe), HTAi and iHEA meetings. Abstracts on cost comparison, cost of treatment, cost benefit, cost consequences, cost-effectiveness, cost minimization and cost utility analyses were reviewed in depth according to a reading grid which allowed extraction of essential information that could enable evidence-based decision-making in health policy. This included e.g. availability of key methodological parameters, involvement of the industry in authorship and details of conclusions. **RESULTS:** We analyzed 5488 abstracts from ISPOR, 1410 from HTAi and 1969 from iHEA. Our preliminary

results show that cost-effectiveness studies constituted 15%, 12% and 7% of all abstracts presented at ISPOR, iHEA and HTAi respectively. Non-drug technologies ranged from 11% at ISPOR to nearly 30% for HTAi and were excluded. 32% of analyses used best standard of care as comparator and 10% did not specify the comparator. Approx. Twenty percent of abstracts did not report discount rates, 28% the nature of costs included in analysis and 10% the time horizon. a total of 52% of analyses reported results as a point estimate of cost per QALY. 15% of abstracts submitted to ISPOR were not co-authored by the industry, 50% at HTAi and above that at iHEA. Analyses which judged the assessed drug to be cost-effective, cost-saving or dominant made up 82%, 70% and below 50% at ISPOR, HTAi and iHEA respectively. **CONCLUSIONS:** ISPOR is a congress preferred by the industry and a high proportion of abstracts reported favourable conclusions. This trend diminished for HTAi and further for iHEA. The quality of abstracts is not satisfactory for informed decision-making.

PHP63

THE ECONOMIC IMPACT OF THE INITIATION OF PRESCRIPTION CONTROL IN THE GREEK SOCIAL SECURITY FUNDS

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OBJECTIVES: Due to the financial crisis Greece was forced to implement hard cost containment measures almost in all fiscal sectors. The objective of the study is to investigate the economic impact emerging from the initiation of controls in prescriptions, implemented in the Greek social security funds as of 1st January 2010 to 30th April 2010. **METHODS:** The data derive from the drug reimbursement database of the three biggest social security funds of Greece from January to April 2010 comparing with the same period of the previous year. The three security funds of the analysis cover about 90% of the greek population with almost 10 million fully insured members. The security funds in scope were the following: IKA which covers the private sector with 6.3 million insured members; OPAD covering the public sector with 1.5 million insured members; OGA for agriculture with 2 million insured patients. **RESULTS:** In the first four-month period of 2010 form the initiation of the prescription control system the pharmaceutical expenditure was the following: for IKA €747 million in comparison to 716 million the same period in 2009, difference of 4.25%, for OPAD 172 million for 2010 whilst in 2009 the expenditure was 203 million, with savings of 15% and for OGA in 2010 was 310 million and the same period in 2009 the amount reimbursed for medicines was €288 million with 7.64% growth. It should be highlighted that although for IKA and OGA the pharmaceutical expenditure is higher in 2010 in comparison to 2009, still the growth of expenditure follows a downward slope, 2008–2009 14.82% for IKA and 11.64% for OGA respectively. **CONCLUSIONS:** The new cost containment measures implemented in the greek health care sector started presenting results. Other cost containment implemented measures were price cuts for all medicinal products in May 2010 and reduced supply prices for sanitary products.

PHP64

VALUE BASED PRICING IN THE UK: A PRICE-QUANTITY MODEL ASSESSMENT

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OBJECTIVES: In the wake of the 2007 Office of Fair Trading (OFT) Pharmaceutical Price and Regulation Scheme (PPRS) market study there is a debate whether the UK should switch to a value-based pricing (VBP) scheme. The OFT VBP system has its aim to price pharmaceuticals in line with their clinical effectiveness. **METHODS:** The switch from the traditional PPRS system to a VBP scheme in the UK was investigated with regards to the two main PPRS objectives: cost containment and value for money. This was carried out by modifying and applying a price quantity setting model (Das, 1980) to fit the UK pharmaceutical market and investigate the capital labour ratio of a firm. The model uses the assumptions that Von Neumann-Morgenstern 4 utility axioms are satisfied, the PPRS profit cap is binding and that the price set in the VBP scheme is efficient. **RESULTS:** This paper finds that a traditional PPRS, compared to a VBP system, might cause overinvestment in capital in proportion to labour resulting in higher than necessary production cost, also called the Averch-Johnson effect. The incentive to overinvest in capital is found to lie in the link between capital and the profit cap. We show that manipulating the profit cap by adding non-producing capital, i.e. rate-base-padding, is only incentivised when marginal productivity of capital is smaller than the cost of capital, net the capital allowance. The VBP effect on cost-containment is found to be ambiguous; if current pharmaceuticals are priced below what is warranted by their clinical effectiveness, cost may actually increase. **CONCLUSIONS:** This paper finds that, based on a price-quantity model assessment, a VBP system should be introduced. It would increase social welfare by pricing pharmaceuticals equal to the benefit they provide, and thus allocate NHS resources to their best possible use.

PHP65

VALUE BASED PRICING IN THE UK: A SURVEY-BASED APPROACH

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OBJECTIVES: A survey was carried out to investigate the economical impact of a switch from the traditional Pharmaceutical Price Regulation Scheme (PPRS) system to a value-based pricing scheme (VBP), as proposed by the Office of Fair Trading (OFT). The OFT VBP system has its aim to price pharmaceuticals in line with their clinical effectiveness. **METHODS:** Interviews were carried out with experts from the industry, academia and the government comparing the traditional PPRS with the proposed VBP system. The interviews focused on the regulatory effectiveness, competition, launch delays, pharmaceutical pricing, risk-sharing agreements and uncertainty premium of the two systems. a systematic literature review was also carried out for all the above mentioned topics. **RESULTS:** In the interviews the current PPRS system was seen as very beneficial with high transparency and stability, nevertheless lacking mechanisms promoting price competition when compared to the VBP system. The main concern with a switch to a VBP system was the risk of a global price lock-in. Since the UK is directly or indirectly influencing pricing decisions within about 25% of global pharmaceutical consumption, the industry might delay drug launch in the UK, to maintain global pricing flexibility (e.g. in the adjuvant setting). Risk-sharing agreements were found to be one possible solution to maintain global price flexibility for the industry, while ensuring the NHS pays a fair price. The interviewed were unanimous about establishing an organization separate from any political influences needs to handle the pricing decision to avoid conflicting incentives. It was suggested to offer a price premium for pharmaceuticals with well documented cost-effectiveness. a premium would incentivise the industry and reduce reimbursement decision uncertainty. **CONCLUSIONS:** This survey indicates that a transparent and stable pricing process with proper risk-sharing agreements would increase the probability of a successful implementation of a VBP system in the UK.

PHP66

AN ASSESSMENT OF THE VARIATION IN ACCEPTED ICERS BY DISEASE TYPE: RESULTS FROM FOUR HTAS

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OBJECTIVES: HTAs are frequently required to assess different treatment regimes for different disease types. Frequently, technology appraisal decisions are based on the ICERs estimated from economic models. The aim of this study was to identify any trends in accepted ICER thresholds by disease type. **METHODS:** All published technology appraisals since April 2005 were downloaded from PBAC, SMC, CADTH, and NICE websites. Appraisals were categorised by disease type according to BNF categories. The manufacturer's base-case ICERs were extracted and compared across accepted submissions by disease type. **RESULTS:** Eighteen CADTH, 122 SMC, 81 PBAC and 122 NICE appraisals were identified. For PBAC and SMC, the accepted ICER level (<$75,000 and <£30,000, respectively) was consistent across >90% of the disease categories. However, accepted ICERs for malignant disease cluster at a higher level (up to $200,000 for PBAC and up to £63,000 for the SMC). Additionally, age related macular degeneration for PBAC, and severe osteoporosis, Lennox-Gastaut syndrome, plaque psoriasis, and hyperammonaemia for the SMC have treatments with accepted ICERs outside the typical range. Data is limited for CADTH, although Crohn's disease and hepatitis B are exceptional in having treatments with accepted ICERs >$80,000. Complex data from NICE is qualitatively assessed in light of data from the other HTAs. Whilst most accepted ICERs were below £30,000, selected submissions for malignant disease were accepted above this commonly assumed threshold. **CONCLUSIONS:** Across disease types, accepted ICERs tend to cluster beneath a common threshold. However, submissions for treatments of malignant disease and immunosuppression have a greater chance of acceptance at higher ICERs than submissions for other disease categories. Rare diseases may also have a higher limit for ICER acceptance.

PHP67

HAS THE QUALITY AND OUTCOMES FRAMEWORK INFLUENCED PRIMARY CARE DATA RECORDING?

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OBJECTIVES: The Quality and Outcomes Framework (QOF) was introduced in the UK in April 2004. The scheme financially rewards practices for providing quality care and this is evaluated based on electronic medical records. This study therefore evaluated whether data recording changed after QOF was introduced. **METHODS:** Patients were selected from The Health Improvement Network (THIN) database, which holds longitudinal anonymised primary care records from >450 UK practices. Patients were grouped according to whether they ever had ≥1 of 15 chronic QOF diseases. Percentages of patients with ≥1 general practice (GP) visit, smoking status, blood pressure (BP) and weight record were estimated throughout nine 12-month time periods (January 4, 2000-January 4, 2009). T-tests compared mean percentages before and after QOF introduction (January 4, 2004). **RESULTS:** Percentage of QOF patients ranged from 26.6% to 32.9% over time and non-QOF patients from 67.1% to 73.4%. The average percentage of QOF patients with a GP visit was 80.5% (standard deviation (SD):3.2) before QOF and 84.5% (SD:0.9) after QOF ($p = 0.086$). These percentages were 57.5% (SD:3.5) and 62.0% (SD:0.6) ($p = 0.082$) for non-QOF patients. The average percentages for smoking recording were 26.8% (SD:12.9) versus 55.9% (SD:3.0) ($p = 0.018$) for QOF patients and 10.9% (SD:4.8%) versus 22.3% (SD:2.9) ($p = 0.010$) for non-QOF patients. For BP recording, 53.6% (SD:6.7) versus 68.1% (SD:4.8) ($p = 0.013$) for QOF patients and 20.5% (SD:2.9) versus 24.2% (SD:0.9) ($p = 0.084$) for non-QOF patients. For weight recording, 25.5% (SD:5.4) versus 40.4% (SD:3.2) ($p = 0.006$) for QOF patients and 9.8% (SD:1.7) versus 14.8% (SD:1.7) ($p = 0.004$) for non-QOF patients. **CONCLUSIONS:** Overall, the proportion of GP visits and clinical recording increased after QOF was introduced, although there was no evidence of a difference for GP visits or BP in non-QOF patients. This suggests that QOF influenced recording, especially the recording of the evaluated clinical measures for patients with chronic QOF diseases.